

IN THE CLAIMS

Please amend the claims as follows.

1-18. (Canceled)

19. (Currently Amended) An electronic system comprising:

a processor; and

a pre-packaged flip chip coupled to the processor, wherein the flip chip includes:

a first semiconductor device having a first side and a second side, the first side comprising a first array of connection pads, the connection pads electrically coupled to circuits on the first semiconductor device;

an adhesive layer covering the first side of the first semiconductor device with a first surface of the adhesive layer contacting the first side, the adhesive layer having an array of column-shaped openings substantially aligned with one or more connection pads of the first array of connection pads and having a chamfer[[],] in the adhesive layer opposite the first surface of the adhesive layer at a second surface of the adhesive layer[[],] at each of the column-shaped openings; and

at least one of the array of column-shaped openings includes a conductive material filling the array of column-shaped openings forming a conductive column within the at least one column-shaped opening, the conductive material in direct contact with the adhesive layer up to the chamfer within the column shaped opening.

20. (Previously Presented) The electronic system of claim 19, wherein the second side of the first semiconductor device is opposite the first side and includes a protective material substantially covering the second side.

21. (Original) The electronic system of claim 19, wherein the adhesive layer is comprised of one or more film layers.

22. (Original) The electronic system of claim 19, wherein the adhesive layer includes a curable, fluid material.

23. (Original) The electronic system of claim 19, wherein the conductive material is solder.

24. (Original) The electronic system of claim 19, wherein the conductive material is cylindrical in shape.

25-50. (Canceled)

51. (Previously Presented) The electronic system of claim 19, wherein the adhesive layer includes an elastomer.

52. (Previously Presented) The electronic system of claim 19, wherein the adhesive layer includes a thermoplastic material.

53. (Previously Presented) The electronic system of claim 19, wherein the adhesive layer includes a thermoset material.

54. (Previously Presented) The electronic system of claim 19, wherein the adhesive layer includes a pressure-sensitive material.

55. (Previously Presented) The electronic system of claim 20, wherein the protective coating includes an epoxy.

56. (Previously Presented) The electronic system of claim 19, wherein the conductive material includes a conductive paste that hardens upon curing.

57. (Previously Presented) The electronic system of claim 19, wherein the conductive material includes a conductive gel that hardens upon curing.

58. (Previously Presented) The electronic system of claim 19, wherein the conductive material is column-shaped.

59. (Previously Presented) The electronic system of claim 19, wherein the second side of the first semiconductor device includes a bonding layer.

60. (Previously Presented) The electronic system of claim 19, wherein the conductive material is flush with a surface of the adhesive layer opposite the first surface of the adhesive layer.

61. (Previously Presented) The electronic system of claim 19, wherein the conductive material protrudes beyond a surface of the adhesive layer opposite the first surface of the adhesive layer.

62. (Withdrawn) An electronic system comprising:

- a processor; and

- a pre-packaged flip chip coupled to the processor, wherein the flip chip includes:

- a first semiconductor device having a first side and a second side, the first side comprising a first array of connection pads, the connection pads electrically coupled to circuits on the first semiconductor device;

- an adhesive layer covering the first side of the first semiconductor device with a first surface of the adhesive layer contacting the first side, the adhesive layer having an array of rectangular openings substantially aligned with one or more connection pads of the first array of connection pads and having a chamfer, opposite the first surface of the adhesive layer, at each of the openings; and

- a conductive material filling the array of rectangular openings.

63. (Withdrawn) The electronic system of claim 62, wherein the second side of the first semiconductor device is opposite the first side and includes a protective material substantially covering the second side.

64. (Withdrawn) The electronic system of claim 63, wherein the protective coating includes an epoxy.

65. (Withdrawn) The electronic system of claim 62, wherein the adhesive layer is comprised of one or more film layers.

66. (Withdrawn) The electronic system of claim 62, wherein the adhesive layer includes a curable, fluid material.

67. (Withdrawn) The electronic system of claim 62, wherein the conductive material is solder.

68. (Withdrawn) The electronic system of claim 62, wherein the adhesive layer includes an elastomer.

69. (Withdrawn) The electronic system of claim 62, wherein the adhesive layer includes a thermoplastic material.

70. (Withdrawn) The electronic system of claim 62, wherein the adhesive layer includes a thermoset material.

71. (Withdrawn) The electronic system of claim 62, wherein the adhesive layer includes a pressure-sensitive material.

72. (Withdrawn) The electronic system of claim 62, wherein the conductive material includes a conductive paste that hardens upon curing.

73. (Withdrawn) The electronic system of claim 62, wherein the conductive material includes a conductive gel that hardens upon curing.

74. (Withdrawn) The electronic system of claim 62, wherein the second side of the first semiconductor device includes a bonding layer.

75. (Withdrawn) An electronic system comprising:

a processor; and

a pre-packaged flip chip coupled to the processor, wherein the flip chip includes:

a first semiconductor device having a first side and a second side, the first side comprising a first array of connection pads, the connection pads electrically coupled to circuits on the first semiconductor device;

an adhesive layer covering the first side of the first semiconductor device, the adhesive layer having an array of rectangular openings substantially aligned with one or more connection pads of the first array of connection pads; and

a conductive material filling the array of rectangular openings.

76. (Withdrawn) The electronic system of claim 75, wherein the second side of the first semiconductor device is opposite the first side and includes a protective material substantially covering the second side.

77. (Withdrawn) The electronic system of claim 76, wherein the protective coating includes an epoxy.

78. (Withdrawn) The electronic system of claim 75, wherein the adhesive layer is comprised of one or more film layers.

79. (Withdrawn) The electronic system of claim 75, wherein the adhesive layer includes a curable, fluid material.

80. (Withdrawn) The electronic system of claim 75, wherein the conductive material is solder.

81. (Withdrawn) The electronic system of claim 75, wherein the adhesive layer includes an elastomer.

82. (Withdrawn) The electronic system of claim 75, wherein the adhesive layer includes a thermoplastic material.

83. (Withdrawn) The electronic system of claim 75, wherein the adhesive layer includes a thermoset material.

84. (Withdrawn) The electronic system of claim 75, wherein the adhesive layer includes a pressure-sensitive material.

85. (Withdrawn) The electronic system of claim 75, wherein the conductive material includes a conductive paste that hardens upon curing.

86. (Withdrawn) The electronic system of claim 75, wherein the conductive material includes a conductive gel that hardens upon curing.

87. (Withdrawn) The electronic system of claim 75, wherein the second side of the first semiconductor device includes a bonding layer.

88. (Previously Presented) The electronic system of claim 19, wherein the conductive material and the adhesive layer are free from an underfill.

89. (New) The electronic system of claim 19, further including the conductive column having a head exposed through the column-shaped opening, the head recessed below the second surface of the adhesive layer.